

BOARD MEMORANDUM

DATED: August 7, 2018

TO: Board of Trustees, Utah School and Institutional Trust Lands Administration

FROM: Thomas B. Faddies, Assistant Director/Minerals
Andy Bedingfield, Minerals Resource Specialist

RE: Right of Mineral Entry (“ROME”) Other Business Arrangement (“OBA”), Industrial Sands ROME-Lease Option Agreement for Unleased Potential Frac Sand deposits in Uintah, Emery and Juab Counties.

LANDS: T3S, R21E, Section 32 (within)
T5S, R22E, Sections, 30, 32, 32, 33 (within)
T5S, R23E, Section 36 (within)
T6S, R22E, Sections 4 and 5 (within)

Containing in all 3,112.99 (School Fund)

APPLICANT: Tyr Energy Coal Logistics, LLC
645 Bronco Road
Corpus Christi, TX 78409

This is a request for Board approval of an Other Business Arrangement (“OBA”) under Utah Code Ann. 53C-2-401(1)(d)(ii). The proposed action includes entering into an right of mineral entry-lease option agreement which will enable the applicant to: 1) Perform exploration and geologic studies on the subject lands; and, 2) if mineable and merchantable industrial sand is discovered, to exercise an option to non-competitively lease the lands or portions of the lands for industrial sands mining upon payment of a bonus bid.

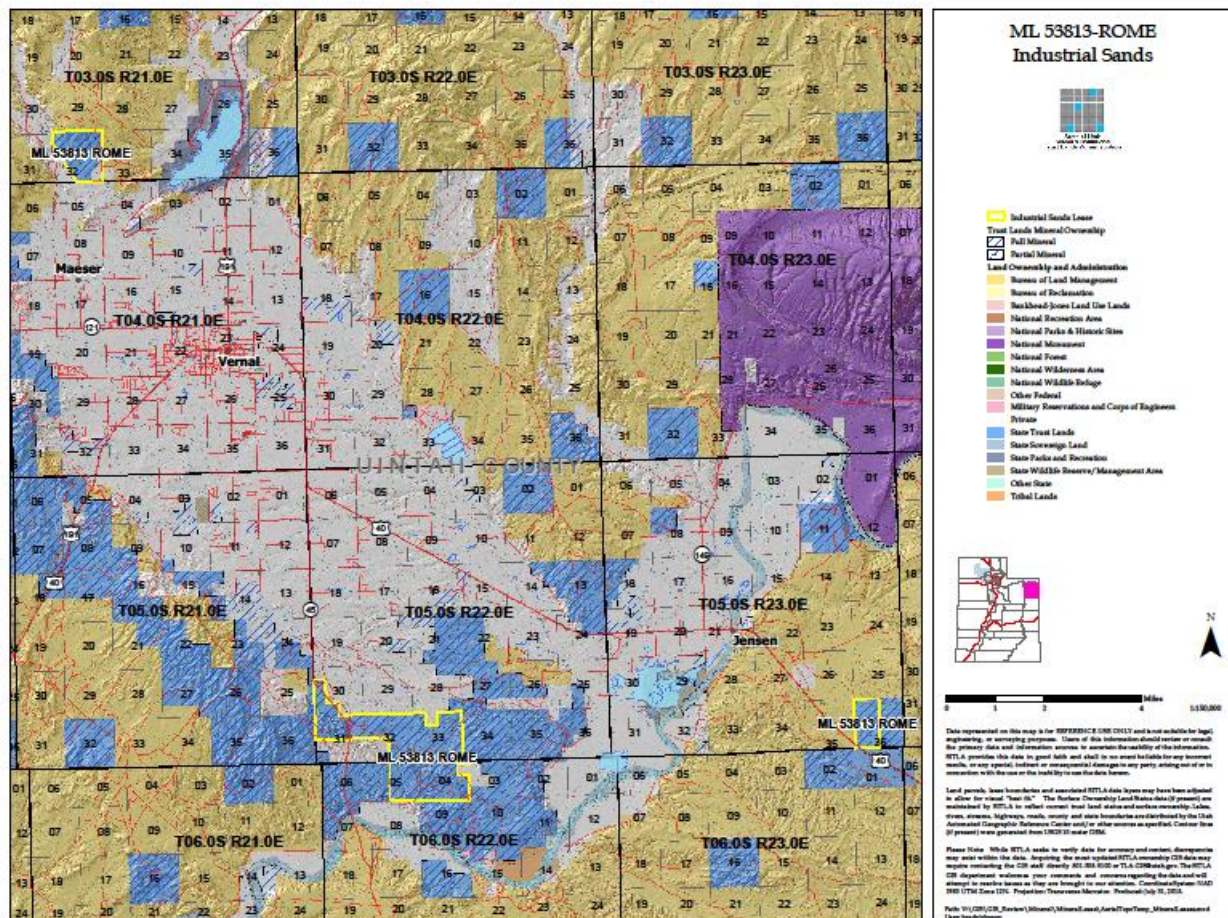
Land Status

These lands lie in northern Uintah County around the City of Vernal. All of the the parcels contain known outcrops of the Nugget Sandstone from the Lower Jurassic and Upper Triassic age, and is the target formation for potential frac sands. The subject parcels contain a number of grazing permits, easements and both oil & gas leases and other mineral leases (bituminous and phosphate). The lands within this proposed lease were acquired by the State of Utah under Confirmatory Patent 43-64-0035 through the Enabling Act, upon Statehood of January 4, 1896, or upon survey from the United States.

Frac Sand Potential

The above described trust lands were included in the study commissioned by SITLA from the Utah Geological Survey entitled “Frac Sand Potential on Selected SITLA Lands” and was written by Andrew Rupke and Taylor Boden (UGS) in 2013. This technical report included sampling and performing various tests on some of the eolian sands and sandstone deposits throughout the state. The subject OBA includes a portion of these lands. The testing performed as part of the report included gradation, roundness/angularity and silica content. Frac sands have very narrow specifications in order to perform properly in a high

pressure down borehole environment; therefore, roundness, strength, silica content and gradation are of high importance.



Trust Lands Industrial Sands Opportunity

Tyr Energy Coal Logistics (TECL) is interested in testing the sandstones and/or unconsolidated sands from the subject lands to gain additional information to determine if the sand grains will meet the frac sand specification. Should any of the sands from the various parcels meet the specification, TECL has requested the option to lease all or portions of the subject lands. The Right of Mineral Entry-Lease Option Agreement negotiated with TECL by the Minerals Group is summarized as follows.

- 1) TECL will commit to exploration on the leased lands and producing a resource report. This data would be submitted to SITLA.
- 2) TECL has a period of 3 years to perform the exploration and testing to determine suitability.
- 3) Upon payment of a one-time bonus in the amount of \$10,000 TECL may obtain a non-competitive trust lands industrial sand lease covering the all or a portion of the subject lands by making said bonus payment to the Trust.
- 4) The industrial sand lease, if issued, will contain standard Trust lands mineral leasing terms and conditions lands. The lease will have a primary term of ten years and require annual rentals of

\$3.00 per acre. The production royalty rate will be 10% of gross value, f.o.b. the mine, or \$3.00 per short ton, whichever is greater for the mineral commodity.

Potential Problems

The specification for frac sand are extremely narrow, and most sand/sandstones do not meet the qualities that are required by the drilling industry. It is not yet known if any of the sands on the subject lands meet the stringent strength testing requirement. Frac sands prices have escalated as oil and gas drilling has increased, and the volume used in each drill hole has increased. However, markets would need to be established by the lessee, as historically the Uintah Basin frac sand market has been supplied from the Upper Midwest. New mines have been established in Oklahoma and Texas in recent years, and the lessee would need to break into an increasingly competitive market.

Discussion and Recommendation

It is anticipated that the market for frac sands will continue to grow, both in the Uintah Basin and elsewhere. Currently frac sand within the Uintah Basin is coming from the Upper Midwest at a premium price to drilling companies. A source of frac sand closer to markets would be advantageous to both producers and the end consumers. The opportunity to lease the lands to a company which has a strong desire to develop this frac sand market, is positive for the Trust. There are no known competitors whom could lease the lands. If TECL elects to move forward and exercise the lease option enabled by the proposed OBA then the Trust will receive the above listed bonus payment, which is comparable to what would be expected if the lands were able to be competitively offered for an industrial sand lease.

The Minerals Group recommends Board Approval of the proposed OBA.